**Maryland**
DEPARTMENT OF
INFORMATION TECHNOLOGY

**Larry Hogan** | Governor
**Boyd K. Rutherford** | Lt. Governor
**Michael G. Leahy** | Secretary
**Lance Schine** | Deputy Secretary

MARYLAND

F!RST

First responders Interoperable Radio System Team

# MD FiRST Newsletter

## December 21, 2020

**MD FiRST DoIT Team**

Norman Farley — Chief of Public Safety Communications
norman.farley@maryland.gov (410) 697-9681 (O), (443) 440-1677 (M)

Jennifer Benedictis — Director, MD FiRST Projects
jennifer.benedictis@maryland.gov (410) 274-7725 (M)

Brandon Renehan — Director, MD FiRST Operations
brandon.renehan@maryland.gov (301)-758-4825 (M)

Patrick King — Assistant System Manager
wpatrick.king@maryland.gov (410) 697-9704 (O), (410) 916-0697 (M)

Justin Ellingwood — MD FiRST IT System Administrator
justin.ellingwood@maryland.gov (410) 697-6985 (O), (410) 693-1874 (M)

Cindy Cole — Collateral Programs Administrator
cindy.cole@maryland.gov (410) 697-9639 (O)

Curt Andrich — MD FiRST Contract Manager
curt.andrich@maryland.gov 804-869-9004 (M)

Charley Bryson — Maryland FiRST Statewide 700 MHz Technical Advisor
charles.bryson@maryland.gov (804) 301-1123 (M)

SOP website:
https://doit.maryland.gov/support/Pages/Radio-Control-Board.aspx

Coverage Issue Reporting Tool: https://forms.gle/EkpDvQBK8qMXsDHr9



Crisfield, Somerset County shelter installation.

## 2020 Year-End Wrap-Up

Dear Board Members, Partners and Stakeholders,

I think we all can agree that 2020 has been an interesting and unique year.  The challenges we have all faced have been unprecedented, nevertheless I am pleased to report that the work of the Maryland FiRST team continues uninterrupted.

As if the worldwide pandemic of 2020 wasn't enough of a challenge, the State also weathered a series of tropical storms which directly tested the resiliency of the Maryland FiRST system.  Our system performed admirably, with the rare busy occurring at peak usage remaining far below targeted thresholds.  Minor equipment damages sustained in the storms were identified and repaired, and best practices for preparedness for future events were identified and reinforced.

In 2020, the Project continued its forward progress with the completion and deployment of several sites to improve system coverage.  Phase 5 continued steady progress toward completion, and additional jurisdictions and users were approved. The system was successfully upgraded to version 7.18 despite pandemic-related challenges!

Looking forward to 2021, Maryland FiRST anticipates completion of the ethernet-based Phase 5 backhaul network which will allow acceptance and deployment in the NCR and Southern MD Regions. The team also plans to complete coverage enhancement in Carroll County by adding 2 sites and converting a third to complete a simulcast cell. Long planned sites at Table Rock and Crisfield will go live, enhancing coverage at the far corners of our State.  Furthermore, it is also our intention to move forward with an Ethernet migration project involving Phases 1 through 4. It is going to be a very busy new year.

Beyond 2021, we are looking at addressing and improving any coverage issues, improving the system's reliability and availability, managing capacity issues, improving the technology (i.e. Ethernet) and ensuring stable funding to keep the system technologically relevant well throughout future budget years.

Please enjoy this newsletter where we share what was accomplished this year and what we are looking at getting done in the future.

Maryland FiRST has a bright future and it is due to your support and efforts. I wish you and yours a happy and safe Holiday Season and a Happy New Year!
Norm

## 2020 Accomplishments:

**New Primary County Migrations:**
Garrett County - Complete June 2020

**New/Expanded MD FiRST Users:**

University of Maryland @ Baltimore PD

Morgan State University PD

MTA Transit Operations

**New RF Sites to Address Coverage Issues (Coverage Improvement Program):**
Cherrytown, Carroll County – Completed

Tower Road, Frederick County – Completed

Crisfield, Somerset County – In progress – DoIT/County partnership

TV Hill/Falls Road , Baltimore County – In progress – DoIT/MTA partnership

Table Rock,  Garrett County (final Phase 4 site) – In progress

**Phase 5 Build-out:**
Nice Bridge Tower/Shelter Construction – Completed
New Shelters at Persimmon Tree Rd & Rockefeller Ct – Completed

Georgia Ave/ICC Tower/Shelter – Completed

Ethernet Backhaul – Install in progress

LMR Equipment Deployment – Mostly Complete

**DoIT/MD FiRST Staff:**

Pat King, Assistant System Manager moved from the Maryland State Police and joined the MD FiRST team in March 2020. Pat assists Brandon (Director, MD FiRST Operations) with the daily operation and maintenance of the system, which includes processing requests from users for changes or additions to the system and troubleshooting system and user issues.

**Awards:**

NASCIO Award - The Maryland Department of Information Technology's Maryland First Responder Radio System Team (FiRST) was recently recognized as the first place winner for the National Association of State Chief Information Officers (NASCIO) Information Technology Recognition Award in the category of Information Communications Technology Initiatives. The NASCIO IT Recognition awards showcase the use of information technology to address critical business problems, more easily connect citizens to their government, improve business processes and create new opportunities that improve the lives of citizens.

"One of the most important aspects of a successful crisis response is communication between our first responders", said Governor Hogan. "Maryland FiRST gives us the ability to stay in communication in some of the toughest situations and we are proud to have Maryland FiRST recognized as the innovative and lifesaving project that it has proven to be."



**Major O&M Activities:**

Major System Upgrade to Version 7.18 successfully completed (started March 2020).

CEN Redesign Completed - Major effort to upgrade and replace CEN networking equipment at dozens of Agency/County sites across the State.

UPS Battery Refresh completed in Region 1A (Original Deployment along I-95 Corridor).

Ocean City ASR Site - Tower modifications performed and MD FiRST Antenna relocated to significantly increase the coverage footprint of this site.

BDA system installed to enhance radio coverage in the tunnels between Legislative Buildings in Annapolis.

Major PM and lifecycle refresh performed on BDA system supporting Fort McHenry and Baltimore Harbor Tunnels.

Coverage Issue Reporting Tool released to User Community - Tool will aid in investigation of coverage dead spots, development of locations where future sites may be required.

Second System Capacity Review was completed and an action plan developed to free up system resources.

Planning continues on conversion of Phases 1-4 of the system from T1s to Ethernet connectivity.

Air-to-Ground: Frequency Coordination with adjoining states was completed and all air-to-ground stations were licensed by the FCC.

**New Limited Primary Users Approved by the RCB:**

Maryland Task Force 1 – Sponsored by MEMA
Internal Revenue Service -Criminal Investigation
Frederick County

**New Interoperability Users Approved by the RCB:**

Montgomery County, MD
Wicomico County, MD
Baltimore City Department of Health
Baltimore City
Preston County, WV

## New SOPs, SOGs

SOP 9 MD Law Call/MD Law

SOP 10 MD Call/MD Event

SOP 2B MD Call/MD TAC (Amended)

## Maryland FiRST Stats for 2020:

Primary Users: 25,727 – 7.2% increase from 2019.

Interop Users: 44,140 – 2.25% increase from 2019.

Total Push-to-Talks (PTT): 28,339,557 – 2.29% decrease from 2019.

Total Interop PTTs: 563,770 – 10.36% decrease from 2019.

Total Airtime: 2,502,750 minutes – 30.02% decrease from 2019.

## Planned Actions for 2021 and Future (MD FiRST Roadmap):

**Coverage Improvement Program:** Carroll County Simulcast Cell (Convert Westminster to Prime, add Sykesville and Taylorsville as subsites).  Budget requests have been submitted to procure several additional RF sites around the State to address coverage issues.

**RF Site UPS Battery Refresh:** Purchase Order issued to refresh all batteries on Phase 2 (Eastern Shore) RF Sites.

**Go Live for Phase 5 Counties:** Scheduled for mid-2021.

**T1 to Ethernet Conversion:** Initial design expected to be finalized in first half of 2021.

## Upcoming System Maintenance

RF Site PMs have begun again and will continue into 2021.

NICE NRX Logger Lifecycle Replacements - Slated to begin at select locations in early 2021.

## Project Development

Phase 5 Coverage Testing:  Temporary backhaul links have been installed by Motorola which will allow for coverage testing to begin in or near January 2021.  Motorola continues work on the permanent Phase 5 backhaul network which will be completely Ethernet-based.

Table Rock ASR (Garrett County):  Site is nearly complete with equipment installed and commercial power delivered to the site.  Awaiting Motorola to complete a final microwave path to achieve backhaul redundancy before final testing and acceptance can occur.

Georgia Ave Tower (Olney, Montgomery County): Site is nearly complete with equipment installed. Awaiting finalization of Antenna and Line (A&L) installation.

Crisfield ASR (Somerset County): Shelter has been placed and equipment installed.  Fiber for backhaul installed in mid-December with commercial power to follow shortly.  Anticipated on-air February 2021!

## MD FiRST User Input / Feedback

**Radio GPS Feature:**  Users are becoming aware that this feature has proven to be valuable. Though somewhat tedious and labor intensive, in recent incidents lost/stolen radios have been retrieved/recovered using the GPS location features.  Although the incidents themselves are law enforcement sensitive and cannot be openly discussed, the success of the radio recoveries is worthy of mention.

**Operational Success Story:**  The Maryland FiRST team received the following feedback from our friends in Charles County, related to the performance of MD FiRST during a recent incident in Ocean City, MD:

*"Ocean City staff had already worked with the MD FiRST team to have some of the MD TAC talkgroups assigned for the event in case they were needed due to a system failure or additional mutual aid units coming into the town. Saturday night into Sunday morning of the event the MD FiRST system shined as I had Ocean City radio personnel patch the OCPD talkgroups with the MD FiRST talkgroups. This was due to the event becoming out of control and a riot being declared by OCPD. The town's emergency management staff called in several additional mutual aid law enforcement units. I was able to assist incoming law enforcement units in finding the MD FiRST MD CALL/TAC zone in their radios and all law enforcement was able to communicate with each other. I only had to hand out a very limited number of Ocean City radios because of this success with interoperability."* Kudos go to many people for making this happen. This definitely goes in the win column for the MD FiRST team.

*Please stay tuned for upcoming issues of your newsletter. Remember to use the tools listed in this issue. Please provide us with your ideas concerning topics/issues you would like included along with news from your region and/or agency.*

---